



SEQUENCE LISTING

<110> Biogen S.c.r.l.
<120> YEAST STRAINS FOR THE PRODUCTION OF LACTIC ACID
<130> 2027.547000
<140> 09/508,277
<141> 2000-06-29
<150> ITALY MI97A002080
<151> 1997-12-09
<150> PCT/EP98/05758
<151> 1998-09-11
<160> 12
<170> PatentIn version 3.0
<210> 1
<211> 27
<212> DNA
<213> Artificial/Unknown
<220>
<221> misc_feature
<222> ()..()
<223> Oligomer anneals to inactivated ampicillin resistance gene of plasmid pALTER-land restores ampicillin resistance to mutant strand after mutagenesis reaction

<400> 1
gttgccattg ctgcagggcat cgtggtg 27

<210> 2
<211> 29
<212> DNA
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<220>
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<223> Oligomer anneals upstream of Bos taurus LDH gene in 5'UTR and creates XbaI restriction site 11 bp before start codon after mutagenesis reaction

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cctttagggt ctagatccaa gatggcaac 29

<210> 3
<211> 27
<212> DNA
<213> Artificial/Unknown
<220>
<221> misc_feature
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<223> Oligomer anneals to 5' end of L. casei LDH gene and introduces a NcoI restriction site which changes the GTG start codon to an ATG start codon

<400> 3
ccatggcaag tattacggat aaggatc 27

<210> 4
 <211> 24
 <212> DNA
 <213> Lactobacillus casei
 <220>
 <221> misc_feature
 <222> ()..()
 <223> Antisense oligomer anneals 8 bp upstream of 3' end of L. casei
 LDH gene

 <400> 4
 ctatcactgc agggtttcga tgtc 24

<210> 5
 <211> 59
 <212> DNA
 <213> Artificial/Unknown
 <220>
 <221> misc_feature
 <222> ()..()
 <223> Oligomer complementary to S. cerevisiae PDC1 and anneals to
 loxP -KanSRD-loxP cassette

 <400> 5
 ttctactcat aacctcacgc aaaataacac agtcaaatca cagctgaagc ttcgtacgc 59

<210> 6
 <211> 62
 <212> DNA
 <213> Artificial/Unknown
 <220>
 <221> misc_feature
 <222> ()..()
 <223> Antisense oligomer complementary to S. cerevisiae PDC1 and anneal
 to loxP-KanSRD-loxP cassette

 <400> 6
 aatgcttata aaactttaac taataattag agattaaatc gcataggcca ctagtggatc 60
 tg 62

<210> 7
 <211> 59
 <212> DNA
 <213> Artificial/Unknown
 <220>
 <221> misc_feature
 <222> ()..()
 <223> Oligomer complementary to S. cerevisiae PDC5 and anneals to

loxP -KanSRD-loxP cassette

<400> 7
atcaatctca aagagaacaa cacaatacaa taacaagaag cagctgaagc ttcgtacgc 59

<210> 8
<211> 62
<212> DNA
<213> Artificial/Unknown
<220>
<221> misc_feature
<222> ()..()
<223> Antisense oligomer complementary to S. cerevisiae PDC5 and anneal to
to loxP-KanSRD-loxP cassette

<400> 8
aaaatacaca aacgttgaat catgagtttt atgttaatta gcataggcca ctagtggatc 60
tg 62

<210> 9
<211> 59
<212> DNA
<213> Artificial/Unknown
<220>
<221> misc_feature
<222> ()..()
<223> Oligomer complementary to S. cerevisiae PDC6 and anneals to
loxP-KanSRD-loxP cassette

<400> 9
taaataaaaa acccacgtaa tatagcaaaa acatattgcc cagctgaagc ttcgtacgc 59

<210> 10
<211> 62
<212> DNA
<213> Artificial/Unknown
<220>
<221> misc_feature
<222> ()..()
<223> Antisense oligomer complementary to S. cerevisiae PDC6 and anneals
to loxP-KanSRD-loxP cassette

<400> 10
tttatttgca acaataattc gtttgagtac actactaatg gcataggcca ctagtggatc 60
tg 62

<210> 11

<211> 59
 <212> DNA
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 loxP-KanSRD-loxP cassette

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 acgcaacttg aattggcaaa atgggcttat gagacgttcc cagctgaagc ttcgtacgc 59

<210> 12
 <211> 62
 <212> DNA
 <213> Artificial/Unknown
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 <221> misc_feature
 <222> ()..()
 <223> Antisense oligomer complementary to *S. cerevisiae* PDC2 and anneals
 to loxP-KanSRD-loxP cassette

 <400> 12
 agcctgtgtt accaggttaag tgtaagttat tagagtctgg gcataggcca ctagtggatc 60
 tg 62